

Aero Design Ltd.**Work Order Control Sheet**Work Order#: 2015-33 Date Opened: 06-Apr-15 Title: FabricationAircraft OEM: Bell Aircraft Model: 407 Product Type: Cargo Basket Product Model: XL Ski Quantity: 2 ~~3~~ 2 *JK***Work Order Contents**

Work Order/Build Sheets (Procedures Provided)
Additional Work Sheets (Standard Practice)
Drawings (See List Below)
Parts Distribution Sheet
Sub Component Tags
Completed Certification (Original)
Time Sheet (R&D)
Notes

Initial or N/A

JR
N/A
JR
JR
JR
N/A
N/A
N/A

Build Sheet Contents

Tasks Initialled
Dual Inspections Initialled

Initial or N/A

JR
JR

Drawing List

Drawing #	Rev #	Description	Initial or N/A
94610	0	Basket	JR
94611	0	Body	JR
94612	0	Lid	JR

Traveller

Initial or N/A

Component Completion

Quantity Complete on This Work Order
Quantity Incomplete on This Work Order
Further Processing Required Before Release
Release to Stock as Components

As Instructed

2 <u>2</u> <i>JK</i>
N/A
N/A
JR

Certification

Form One Completed
Serviceable (Green) Tag Completed
In Process (Yellow) Tag Completed
Unserviceable (Red) Tag Completed
Parts Tracking Tag (White) Completed
Parts Placed in Stores for Distribution

Initial or N/A

N/A
N/A
N/A
N/A
JR
JR

Additional Documentation

Documentation of a minor change
Non-Conformance Report Required
Service Difficulty Report Required

Initial or N/A

N/A
N/A
N/A

Billing

Local (Aero Design)
Research and Development
Third Party

Initial or N/A

JR
N/A
N/A

Work performed by:

Print: J Rekve for M RekveSign: *Jason Rekve*SCA: AD01Date: 06-Apr-15

ICC / Dual Inspection performed by:

Print: Jason RekveSign: *Jason Rekve*SCA: AD01Date: 06-Apr-15

Work Order closed by:

Print: Jason RekveSign: *Jason Rekve*SCA: AD01Date: 01-May-15

Approved Manufacturing Facility 73-04

Form 20.0:03

Rev. Original 23 Sep 2014



WO# 2015-33

Approved Manufacturing Facility 73-04

Form 20.F.06

Rev. Original 27 May 2013

Work Order: 2015-33

Material Tracking Sheet

1 of 2

Bell 206L / 407

Date Opened: 06 APR 2015

Extra Wide - Ski Basket Hoops Fabrication

Ass'y Step	Qty	Detail Drawing	Part Number	Description	Material	PO/WO
Step 1			94520-01	Hoop - standard	4130 Steel, 1/2" x 0.035 Sqr. Tube	2015-25
Step 1			94620-01	Hoop - standard	4130 Steel, 1/2" x 0.035 Sqr. Tube	2015-25
Step 1			94520-01	Hoop - with handle provisions	4130 Steel, 1/2" x 0.035 Sqr. Tube	2014-80
Step 2		84262		Welding		
	. 2		84272-01	Bushing	4130 Steel, 5/16" x 0.058 Rnd. Tube	
	A/R		--	Welding Rod	ER70S-2	14033
Step 3				Inspection	None	
			94521-01	Hoop - attachment (forward)		
Step 1				Fabrication		
	. 1		94520-01	1/2" Tube - hoop	4130 Steel, 1/2" x 0.035 Sqr. Tube	2014-66
Step 2				Welding		
	. 2		69823-02	Lug	1018 Steel, 5/8" Rod	2014-70
	A/R		--	Welding Rod	ER70S-2	14033
Step 3				Finishing and Inspection	None	

Work Order: 2015-33

Material Tracking Sheet

2 of 2

Bell 206L / 407

Date Opened: 06 APR 2015

Extra Wide - Ski Basket Hoops Fabrication

Ass'y Step	Qty	Detail Drawing	Part Number	Description	Material	PO/WO
			94522-01	Hoop - attachment (aft)		
Step 1				<i>Fabrication</i>		
	. 1		--	1/2" Tube - hoop	4130 Steel, 1/2" x 0.035 Sqr. Tube	2014-66
Step 2				<i>Welding</i>		
	. 2		69823-02	Lug	1018 Steel, 5/8" Rod	2014-70
	. A/R		--	Welding Rod	ER70S-2	14033
Step 3				<i>Finishing and Inspection</i>	None	



Aero Design Ltd.

9888 A Malaspina Rd., Powell River, BC
V8A 0G3, 604-483-AERO (2376)

Quantity: 1

PN: 94521-01

Aircraft: Bell

Model: 407

Description: Forward Hoop

Supplier: Aero Design

Color: N/A

WO#: 2014-66

PO# 14060



Aero Design Ltd.

9888 A Malaspina Rd., Powell River, BC
V8A 0G3, 604-483-AERO (2376)

Quantity: 1

PN: 94522-01

Aircraft: Bell

Model: 407

Description: Low Mount AFT Hoop

Supplier: Aero Design

Color: N/A

WO#: 2014-66

PO# 14060



Aero Design Ltd.

9888 A Malaspina Rd. Powell River, BC, V8A 0G3

Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Nomenclature: 2061/407 Hoop-Standard No. of pieces: 1

Manufacturer: _____

Part No.: 94520-01 Serial / Batch No.: _____

TTSN: N/A TSO: N/A Rem.: N/A

Work Order No.: 2015-25

Remaining Tasks to be Performed: Weld into basket

Signature: K. Craven

Date: March 10, 2015 Lic. No. / SCA _____

In Process



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9888 A Malaspina Rd. Powell River, BC, V8A 0G3

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AMF 73-04

Remarks

In Process



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Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Nomenclature: 206L/407 Hoop-Stamped No. of pieces: 1

Manufacturer: _____

Part No.: 94520-01 Serial / Batch No.: _____

TTSN: N/A TSO: N/A Rem.: N/A

Work Order No.: 2015-25

Remaining Tasks to be Performed: weld into basket

Signature: KCrawen

Date: March 10, 2015 Lic. No. / SCA _____

In Process



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AMF 73-04

Remarks

In Process



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AMF 73-04

Nomenclature: 407 wide hoop No. of pieces: 4

Manufacturer: AERO DESIGN

Part No.: 9452001 Serial / Batch No.: 14009

TTSN: N/A TSO: N/A Rem.: N/A

Work Order No.: 2014-50

Remaining Tasks to be Performed: Drill into bracket

Signature: [Signature]

Date: Oct 30, 2014 Lic. No. / ACA AD06

In Process



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AMF 73-04

Remarks

In Process



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Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Nomenclature: 2062/407 Hoop-Hall No. of pieces: 1

Manufacturer: _____

Part No.: 94520-01 Serial / Batch No.: _____

TTSN: N/A TSO: N/A Rem.: N/A

Work Order No.: 2015-25

Remaining Tasks to be Performed: weld into basket

Signature: h Crover

Date: March 10, 2015

Lic. No. / SCA _____

In Process



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AMF 73-04

Remarks

In Process



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Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Nomenclature: 206L/407 Harp - Handle No. of pieces: 1

Manufacturer: _____

Part No.: 94520-01 Serial / Batch No.: _____

TTSN: N/A TSO: N/A Rem.: N/A

Work Order No.: 2015-25 weld KC

Remaining Tasks to be Performed: weld into basket

Signature: KC. Cawson

Date: March 10, 2015 Lic. No. / SCA _____

In Process



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9888 A Malaspina Rd. Powell River, BC, V8A 0G3

Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Remarks

In Process





Aero Design Ltd.

9888 A Malaspina Rd., Powell River, BC
V8A 0G3, 604-483-AERO (2376)

Quantity: 1

PN: 94521-01

Aircraft: Bell

Model: 407

Description: Forward Hoop

Supplier: Aero Design

Color: N/A

WO#: 2014-66

PO# 14060



Aero Design Ltd.

9888 A Malaspina Rd., Powell River, BC
V8A 0G3, 604-483-AERO (2376)

Quantity: 1

PN: 94522-01

Aircraft: Bell

Model: 407

Description: Low Mount AFT Hoop

Supplier: Aero Design

Color: N/A

WO#: 2014-66

PO# 14060



Aero Design Ltd.

9888 A Malaspina Rd. Powell River, BC, V8A 0G3

Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Nomenclature: 302L/407 Hoop-Standard No. of pieces: 1

Manufacturer: _____

Part No.: 94520-01 Serial / Batch No.: _____

TTSN: N/A TSO: N/A Rem.: N/A

Work Order No.: 2015-25

Remaining Tasks to be Performed: Weld into basket

Signature: K. Crowen

Date: March 10, 2015 Lic. No. / SCA _____

In Process



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Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Remarks

In Process



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Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Nomenclature: 206/407 Hoop Standard No. of pieces: 1

Manufacturer: _____

Part No.: 94520-01 Serial / Batch No.: _____

TTSN: N/A TSO: N/A Rem.: N/A

Work Order No.: 2015-25

Remaining Tasks to be Performed: weld into basket

Signature: K Craven

Date: March 10, 2015 Lic. No. / SCA _____

In Process



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AMF 73-04

Remarks

In Process



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Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Nomenclature: 2061 1407 Hoop-Standard No. of pieces: 1

Manufacturer: _____

Part No.: 94520-01 Serial / Batch No.: _____

TTSN: N/A TSO: N/A Rem.: N/A

Work Order No.: 8015-25

Remaining Tasks to be Performed: weld into basket

Signature: Keravan

Date: March 10, 2013 Lic. No. / SCA _____

In Process



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AMF 73-04

Remarks

In Process



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9888 A Malaspina Rd. Powell River, BC, V8A 0G3

Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Nomenclature: 206L/407 Hoop-Standard No. of pieces: 1

Manufacturer: _____

Part No.: 94520-01 Serial / Batch No.: _____

TTSN: N/A TSO: N/A Rem.: N/A

Work Order No.: 2015-25

Remaining Tasks to be Performed: weld into basket

Signature: B. Craven

Date: March 10, 2015 Lic. No. / SCA _____

Form# 20.E.03 Rev. 1 24 April 2014

In Process



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AMF 73-04

Remarks

In Process



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9888 A Malaspina Rd. Powell River, BC, V8A 0G3

Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Nomenclature: 206L 1407 Hoop - Standard No. of pieces: 1

Manufacturer: _____

Part No.: 04520 - 01 Serial / Batch No.: _____

TTSN: N/A TSO: N/A Rem.: N/A

Work Order No.: 2015-25

Remaining Tasks to be Performed: weld into basket

Signature: K. Craven

Date: March 10, 2015 Lic. No. / SCA _____

In Process



Aero Design Ltd.

9888 A Malaspina Rd. Powell River, BC, V8A 0G3

Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Remarks

In Process

CARGO BASKET LID FABRICATION - COMMON

General

These instructions apply to all cargo basket lid assemblies. Refer to the following drawings, at the current revision, for dimensions and details:

Bell 206L/407 – Right side only

69812, Revision 3 – Standard Low Mounted Basket; Extra-Wide Low Mounted Basket

→ 94612, Revision 0 – Extra-Wide Low Mounted Ski Basket

76612, Revision 0 – High Mounted Ski Basket

Eurocopter AS350/AS355 – left or right

77612, Revision 1 – Short Basket

69812, Revision 3 – Medium Basket (left and right)

78412, Revision 2 – Long Basket

94012, Revision 0 – Extra Large (ski) Basket

Robinson R44 – left or right

90612, Revision 0 – Standard Basket (left or right)

Bell 206B – right side only

80212, Revision 0 – Short Basket

80312, Revision 0 – Medium Basket

81112, Revision 0 – Long Basket

Bell 429 – right or left

95912, Revision 0 – Standard Basket

Bell Medium – left or right

75112, Revision 0 – Standard Basket

95512, Revision 0 – Extra Large (ski) Basket

MD600

82812, Revision 0 – Standard Basket

Options

→ 70405, Revision 3 – Walkway

70402, Revision 1 – Lid Door

2015-33

407 XL Low Ski

w/ WALKWAY

~~x2~~ ~~x3~~

x2 fl.

CARGO BASKET LID FABRICATION

Complete
(initial or SCA #)

Work Order: 2015-33

Date Open: 06 APR 2015

1. Rim Assembly – Basket Lid

AD06

- a. Cut and fit $\frac{3}{4}$ " x 0.035 material to fit rim jig, 45 degree ends.
 - i. 1 or 2 lid prop bushing holes in short tube – refer to drawing
- b. Record material PO on attached material list.
- c. Remove writing on tubes with acetone and scotch bright.

2. Weld Rim Assembly

AD-05

- a. Record welding rod PO on attached material list.

3. Inspection

AD06

- a. Rim for complete welds

4. Frame assembly – Lid

AD06

- a. General
 - i. Vent holes shall be #30 (0.129), and located inside the structure wherever possible to allow venting of weld gasses through existing holes (i.e. lid prop bushing)
- b. Insert rim from step 2 into jig.
- c. Cut and fit $\frac{3}{4}$ " x 0.035 material, 21" long, for lid cross members.
- d. Record material PO on attached material list.
- e. Remove writing on tubes with acetone and scotch bright.
- f. Drill vent holes into rim to vent cross members into rim.
- g. Locate cross members in lid rim. Refer to drawing for spacing of cross members. Clamp cross members with C-clamps to jig.

5. Frame assembly – Lid with optional walkway modification

AD06

- a. Fit cross members to rim in accordance with step 4.
- b. Attach walkway jig with C-clamps. Ensure correct orientation of rim, refer to drawing.
- c. Cut $\frac{1}{2}$ " x 0.035 material for walkway stringers to fit between lid cross members. Record material PO on attached material list.
- d. Drill vent holes into cross members at walkway stringers.
- e. Align walkway stringers on walkway jig using cleco clamps near both ends of each stringer, and clamp stringer to jig using a C-clamp in the centre.

6. Weld frame assembly.

AD-05

- a. Record welding rod PO on attached material list.
- b. Jigs must remain in place for as long as practical during welding.

7. Inspection

AD06

- a. Frame assembly for complete welds.

CARGO BASKET LID FABRICATION

Complete
(initial or SCA #)

AD06

8. Mesh assembly.

Note: 95912 (Bell 429) does not have mesh. Skip to step 10.

- Pull sheet of expanded mesh from stock. Record material PO on attached material list.
- Cut mesh to size for lid.
- Remove surface rust with scotch-brite.
- Ensure lid is prepared for mesh on the correct side.

9. Weld mesh to frame assembly per drawing.

AD-05

- General welding requirements for all lids:
 - Every intersection on all edges.
 - First 5 intersections along cross members, then every second intersection.
- MIG weld both short sides.
- Clamp lid over spacer at centre of lid to pre-tension mesh.
 - $\frac{3}{4}$ " for lids under 76"
 - 1" (check) for lids over 76"
- Weld remainder of mesh as indicated in a.
- Record welding rod PO on attached material list.

10. Weld lid components.

AD-05

- Handle brackets, locate in accordance with drawing.
 - Standard location: $\frac{1}{4}$ " outside of last cross member on both ends.
 - Record handle bracket WO and welding rod PO on attached material list.
- Lid prop bushing(s).
 - one or two in accordance with drawing.
 - Record lip prop bushing WO and welding rod PO on attached material list.
- Placard bracket. – not installed on 95912 (Bell 429)
 - Locate on cross member to set bracket in centre bay of lid.
 - Record placard bracket WO and welding rod PO on attached material list.

11. Clean up

AD06

- Grind high spots off mesh welds.
- Tighten mesh using special pliers. Tighten enough to remove "oil canning", where mesh springs in or out.
- Straighten lid using frame attached under welding table. Work carefully, avoid excessive force to prevent kinking rim tubes.
- Drill #9 through lid prop bushing(s). De-burr hole(s).
- Drill for lid bumpers using $\frac{1}{4}$ " (#3) centre drill.
 - 3 places for lids under 76"
 - 4 places for lids over 76"
- Remove surface rust with scotch-brite pad.

12. Final Inspection

To be completed by a different person than the previous steps.

OK

- Basket lid assembly for complete welds, and required minimum mesh weld locations.
- Material lists complete.
- Overall condition and conformity to drawing(s).

CARGO BASKET LID FABRICATION

Complete
(initial or SCA#)



13. Powder Coating

- a. Parts are to be powder coated white in accordance with commercial practices.
- b. Record powder coating PO.
- c. Inspect powder coating on receiving.
- d. Tag lid assembly and place into stock in preparation for assembly.

Work Order: 2015-33

Material Tracking Sheet

1 of 2

Bell 206L / 407

Date Opened: 06 APR 2015

Extra Wide Ski Basket Lid Fabrication

Ass'y Step	Qty	Detail Drawing	Part Number	Description	Material	PO/WO
			94612-01	Lid Assembly		
Step 1				<i>Rim Assembly</i>		Insert 2013-25-ADOG
	. 2		--	3/4" Tube - Long Rim (97.0")	4130 Steel, 3/4" x 0.035 Sqr. Tube	14099
	. 2		--	3/4" Tube - Short Rim (22.5")	4130 Steel, 3/4" x 0.035 Sqr. Tube	1223
Step 2				<i>Weld Rim Assembly</i>		
	. A/R		--	Welding Rod	ER70S-2 TIG Rod	14033
Step 3				<i>Inspection - Rim</i>	None	
Step 4				<i>Frame Assembly</i>		
	. 4		--	3/4" Tube - Cross Member (21")	4130 Steel, 3/4" x 0.035 Sqr. Tube	14099
Step 5		70405		<i>Option: Frame Assembly - with walkway</i>		
	. 10		--	1/2" Tube - walkway	4130 Steel, 1/2" x 0.035 Sqr. Tube	14083/14099
Step 6				<i>Weld Frame Assembly</i>		
	. A/R		--	Welding Rod	ER70S-2 TIG Rod	14033
Step 7				<i>Inspection - Frame Assembly</i>	None	
Step 8				<i>Mesh Assembly</i>		
	. 1		--	Mesh (lid - 96" x 22")	3/4-16F Expanded Mild Steel sheet	14012
Step 9				<i>Weld Mesh</i>		
	. A/R		--	Welding Rod	ER70S-6 MIG Wire	14033

Work Order: 2015-33

Material Tracking Sheet

2 of 2

Bell 206L / 407

Date Opened: 06 APR 2015

Extra Wide Ski Basket Lid Fabrication

Ass'y Step	Qty	Detail Drawing	Part Number	Description	Material	PO/NO
Step 10				<i>Weld Lid Components</i>		
	. 1	84262	84262-01	Upper Handle Bracket Assembly		
	. . 4		36273-01	Lid Bracket	321 Stainless, 0.050 Sheet	2014-35
	. . 2		36275-02	Support	304 Stainless, 5/16" Rod	2014-38
	. A/R		--	Welding Rod	ER308L TIG Rod	14028
	. 1		49216-01	Spacer (Lid prop)	304 Stainless, 1/2" Dia.	2015-07
	. A/R		--	Welding Rod	ER308L TIG Rod	14028
	. 1		36204-10	Placard Bracket	1018 Steel, 0.035" Sheet	9010
	. A/R		--	Welding Rod	ER70S-2 TIG Rod	14033
Step 11				<i>Clean Up</i>		
Step 12				<i>Inspection - Final Assembly</i>		
Step 13				<i>Powder Coating</i>		

2015-33

407 XL Low SKI BASKET
~~*2 *3 JK~~
x2 JK

CARGO BASKET BODY FABRICATION - COMMON

General

These instructions apply to all cargo basket body assemblies. Refer to the following drawings, at the current revision, for dimensions and details:

Bell 206L/407 – Right side only

69811, Revision 3 – Standard Low Mounted Basket

94511, Revision 0 – Extra-Wide Low Mounted Basket

→ 94611, Revision 0 – Extra-Wide Low Mounted Ski Basket

76611, Revision 0 – High Mounted Ski Basket

Options 70404, Revision 2 – Front end cutout – 698

70411, Revision 0 – Front end cutout – 945/946

Eurocopter AS350/AS355 – left or right

77611, Revision 1 – Short Basket

76411, Revision 3 – Medium Basket (left or right)

78411, Revision 2 – Long Basket

94011, Revision 0 – Extra Large (ski) Basket

Options 70406, Revision 2 – Front end cutout – 764/776/784/940

Robinson R44 – left or right

90611, Revision 0 – Standard Basket (left or right)

Bell 206B – right side only

80211, Revision 0 – Short Basket

80311, Revision 0 – Medium Basket

81111, Revision 0 – Long Basket

Options 70406, Revision 2 – Front end cutout – 802/803/811

Bell 429 – right or left

95911, Revision 0 – Standard Basket

Bell Medium – left or right

75111, Revision 0 – Standard Basket

95511, Revision 0 – Extra Large (ski) Basket

Options 70407, Revision 1 – Front end cutout – 751

704, Revision – Front end cutout – 955

MD600

82811, Revision 0 – Standard Basket

Options – Applicable to all models

70403, Revision 5 – Auxiliary Latch

CARGO BASKET BODY FABRICATION - COMMON

Complete
(initial or SCA #)

Work Order: 2015-33

Date Open: 06 APR 2015

AD06

1. Rim Assembly – Basket Body

- a. Cut and fit $\frac{3}{4}$ " x 0.035 material to fit rim jig.
 - i. 1 or 2 lid prop bushing holes in short tube – refer to drawing
- b. Record material PO on attached material list.
- c. Remove writing on tubes with acetone and scotch bright.
- d. For extra large baskets – drill #30 (0.129) vent holes to vent stringer tubes into rims.
- e. 94611 (206L/407 XL ski) only – drill for 4 threaded bushings before assembling rim.

2. Weld Rim Assembly.

- a. Record welding rod PO on attached material list.
- b. 94611 (206L/407 XL ski) only – weld 4 threaded bushings into inboard rim tube.

AD-05

3. Inspection

- a. Rim for complete welds

AD06

4. Frame assembly – body

- a. General
 - i. Vent holes shall be #30 (0.129), and located inside the structure wherever possible to allow venting of weld gasses through existing holes (i.e. lid prop bushing, hoops, etc.)
- b. Grind corner welds from step 2 on rim to allow hoops to sit flat.
- c. Pull required hoops from stock - standard, attachment, handle.
 - i. If hoops are not in stock see detailed procedure sheet for specific hoop fabrication.
 - ii. Ensure vent hole is located at centre of tube to vent spine tubes.
- d. Assemble hoops with attachment lug locating jig and hoop spacing jig.
 - i. Ensure correct order and orientation of hoops. Refer to drawing.
 1. Attachment lugs are on inboard side.
 2. Handle bracket bushings are on outboard side, second hoop from both ends.
May be on attachment hoops.
 - ii. Run 3/8-24 tap into attachment lugs to ensure clear threads.
 - iii. Bolt attachment lug locating jig to attachment hoops with 3/8-24 bolts.
 - iv. Attach inboard and outboard hoop spacing jigs to all hoops using 1" C-clamps. Raise jigs approximately 2" off table to allow room to weld around hoops.
 - v. Attach bottom (spine) jig to all hoops using 1" C-clamps along the centre line of the basket. Ensure jig is straight prior to tightening all clamps.
- e. Cut $\frac{1}{2}$ " x 0.035 material to fit spine jig.
- f. Cut $\frac{1}{2}$ " x 0.035 material for strut to fit from lower inboard attachment to upper outboard rim.
 - i. Refer to applicable drawing for position, not required on some baskets.
- g. Option: Cut $\frac{1}{2}$ " x 0.035 material for front end cutout. Record material PO on attached material list.
- h. 90611 (R44) only: Cut $\frac{1}{2}$ " x 0.035 material to fit front end structure. Record material PO on attached material list.
- i. Drill vent holes into attachment hoop and/or rim to vent strut(s) and front end cutout.

AD06

- j. Record hoop WOs and material POs on attached material list.
- k. Remove writing on tubes with acetone and scotch bright.
- l. Insert rim assembly into jig and set frame assembly onto rim. Ensure correct orientation of lid prop bushings in rim to frame. Bushing hole must be closer to attachment side.
- m. Align hoops to rim in accordance with drawing. General positions:
 - i. Extra large baskets
 - 1. inboard side of hoops (attachment side) aligns to OUTSIDE of rim
 - 2. outboard side of hoops (handle side) aligns to INSIDE of rim
 - 3. forward and aft hoops align to INSIDE of rim
 - ii. All other baskets
 - 1. inboard side of hoops (attachment side) aligns to INSIDE of rim
 - 2. outboard side of hoops (handle side) aligns to INSIDE of rim
 - 3. forward and aft hoops align to INSIDE of rim, except R44

5. TIG weld frame to rim assembly.

- a. Ensure lug locating jig and hoop locating jigs are in place. Jigs must remain in place for as long as practical during welding.
- b. Strut tubes and front end cutout (see step 4.f. and g.) must be welded in place after the hoops are welded to the rim. Jig(s) must be in place prior to welding strut tubes.
- c. Robinson R44 (90611) requires fitting and welding of forward end after remainder of basket frame is welded. Use jig to support front hoop.
- d. Record welding rod PO on attached material list.

AD05

6. Inspection

- a. Frame assembly for complete welds.

AD06

7. Mesh assembly.

- a. Pull sheet of expanded mesh from stock. Record material PO on attached material list.
- b. Cut mesh to size for body.
- c. Remove surface rust with scotch-brite.
- d. Bend body mesh – use table with bend markings on top. Lock wheels on table.
 - i. For extra wide baskets only –
 - 1. Set $\frac{3}{4}$ " angle along edge of table under mesh sheet. Set 1.5" square tube on top of mesh aligned with angle on edge of table. Clamp in place with 6" C-clamps.
 - 2. Bend upper edge of sheet just past a cell intersection to make a flange 2.5" - 3.25" wide. Closer to 2.5" is preferred, full cell intersection on flange side at bend is required.
 - 3. Bend down by hand as far as possible, then use a hammer to flatten the bend tight against the angle on the edge of the table.
 - ii. Using markings on table, align sheet to indicated edge.
 - iii. Using markings on table, align 3" tube to required position and clamp tube in place.
 - iv. Bend mesh by hand tightly over tube along length of tube.
 - v. Keeping mesh in place, un-clamp 3" tube, move to other position and clamp tube in place.
 - vi. Bend mesh by hand tightly over tube along length of tube.
- e. Install attachment lug jig onto basket frame.

AD06

- f. Ensure end struts are welded in basket frame if required by the drawing.
- g. Insert mesh into basket.
 - i. General
 - 1. Some cells may interfere with correct positioning, especially at the upper corners and around struts. Bend cell(s) in as required, do not cut cells off.
 - 2. Ideally welds will be located on mesh intersections. Shift mesh if possible to minimize welds located off mesh intersections.
 - 3. Ensure mesh reaches all edges of basket BEFORE trimming. Regardless of progress in clamping, remove clamps and shift mesh if required.
 - 4. Ensure cleco clamps are placed from the inside of the basket to allow removal during welding. Cleco clamps may be used from the outside during fitting, but must be removed prior to welding.
 - ii. Extra large baskets only – seat corner of mesh with flange into inboard upper corner of frame. Use C-clamps on edge of flange as required to maintain tight fit.
 - iii. Starting at inboard top edge of basket, clamp mesh to hoop near top rim using cleco clamps onto hoops. For regular size baskets, edge of mesh should sit approximately half way up rim tube.
 - iv. Working down the inboard side, clamp mesh to hoops with cleco clamps. Clamp down into radius of hoop and continue clamping as required to maintain tight fit in corner of hoop. After the corners are tight, two clamps just onto the radius on both ends should be sufficient to hold the corner tight, remove all extra clamps.
 - v. Clamp mesh to spine in at least 1 place per section.
 - vi. Working up the outboard side, clamp the mesh into the radius of hoop and continue clamping as required to maintain tight fit in corner of hoop. After the corners are tight, 2 clamps just onto the radius on both ends should be sufficient to hold the corner tight, remove all extra clamps.
 - vii. Trim upper outboard edge of mesh if required, edge of mesh must be low enough on rim tube to prevent the weld from protruding above the edge of the rim. Some sheets are tapered and may require ½ to 1 cell to be removed over some or all of the length of the basket. De-burr cut edges with a sanding disc on a die-grinder. Straighten cut cells with duck-bill pliers. Clamp mesh near upper edge to hoops with cleco clamps after trimming.
 - viii. Trim ends to land on hoops, at mesh intersections if possible.
- h. Cut mesh to fit ends. Record material PO on attached material list.
 - i. Remove surface rust with scotch-brite.
 - ii. Ensure mesh is cut at intersections where possible.
 - iii. Bend top edge of mesh 1/8"-3/16" down at 45 degrees
 - iv. Cut for front end cutout if required.
- i. 90611 (R44) only: Cut mesh to fit upper forward end. Record material PO on attached material list.
 - i. Remove surface rust with scotch-brite.
 - ii. Ensure mesh is cut at intersections where possible.
 - iii. Bend top edge of mesh 1/4" down at 60 degrees.
 - iv. Fit mesh to front end of basket.

CARGO BASKET BODY FABRICATION - COMMON

Complete
(initial or SCA #)

AD-05

8. Weld mesh to frame assembly per drawing.
 - a. Ensure lug locating jig is in place prior to welding.
 - b. General welding requirements for all baskets, MIG welding:
 - i. Every intersection at top edges.
 - ii. Every intersection at ends.
 - iii. First 5 intersections down on hoops, then every second intersection.
 - iv. Every intersection along spine.
 - v. Extra large baskets – every intersection along corner.
 - vi. Every intersection around ends
 - vii. Every intersection along struts (if applicable)
 - c. Bend and trim cells bent in to fit mesh as required and weld in position.
 - d. Grind high spots off body mesh welds on ends before welding end mesh.
 - e. 90611 (R44) only – weld lid prop bushing (step 9) into rim BEFORE welding upper mesh on forward end of basket assembly.
 - f. Record welding rod PO on attached material list.

9. Weld basket components

- a. TIG weld lid prop bushing(s), one or two per drawing.
 - i. Record welding rod PO on attached material list.
 - ii. Record lip prop bushing WO on attached material list.
- b. TIG weld caps to close top of 1" hoops as applicable.
- c. 94611 (Bell206L/407 XL ski) only: cut rim over cross tube gap.
 - i. Cut inboard rim on aft end. Grind flush with hoops.
 - ii. TIG weld caps on open tubes.
 - iii. Record cap material PO on attached material list.
- d. 95911 (Bell 429) only: placard bracket to forward upper corner of basket.
 - i. Record welding rod PO on attached material list.
 - ii. Record placard bracket WO on attached material list.

AD-05

10. Clean up

- a. Grind high spots off mesh welds.
- b. Tighten mesh using special pliers. Tighten enough to remove "oil canning", where mesh springs in or out. Do not tighten in corners of hoops, mesh will be deformed.
- c. Drill #9 through lid prop bushing(s). De-burr hole(s).
- d. Remove surface rust with scotch-brite pad.

AD-06

11. Final Inspection

To be completed by a different person than the previous steps.

- a. Basket body assembly for complete welds, and required minimum mesh weld locations.
- b. Filled vent holes – usually on hoops
- c. Overall condition and conformity to drawing(s).
 - i. Hoops for height.
 - ii. Rim for width and length and alignment.
 - iii. Lid prop lugs in correct ends.
 - iv. Fore/aft strut in hoop if required by drawing.
- d. Material lists complete.

OK

CARGO BASKET BODY FABRICATION - COMMON

Complete
(initial or SCA #)



- e. Tag complete basket body assembly in preparation for powder coating.

12. Powder Coating

- a. Parts are to be powder coated white in accordance with commercial practices.
- b. Record powder coating PO.
- c. Inspect powder coating on receiving.
- d. Tag basket body assembly and place into stock in preparation for assembly.

Work Order: 2015-33

Material Tracking Sheet

1 of 2

Date Opened: 06 Apr 2015

Bell 206L / 407

Extra Wide Ski Basket Body Fabrication

Ass'y Step	Qty	Detail Drawing	Part Number	Description	Material	PO/WO
			94611-01	Basket Assembly		
Step 1				<i>Rim Assembly</i>		
	. 2		--	3/4" Tube - Long Rim (97")	4130 Steel, 3/4" x 0.035 Sqr. Tube	14099
	. 2		--	3/4" Tube - Short Rim (25.5")	4130 Steel, 3/4" x 0.035 Sqr. Tube	14099
	. 1		--	3/4" Tube - Long stringer (95.5")	4130 Steel, 3/4" x 0.035 Sqr. Tube	14099
	. 5		--	3/4" Tube - Short Rim (2.5")	4130 Steel, 3/4" x 0.035 Sqr. Tube	12111
	. 4		94621-02	Insert	1018 Mild Steel, 3/8" Rod	2013-25
Step 2				<i>Weld Rim Assembly</i>		
	. A/R		--	Welding Rod	ER70S-2 TIG Rod	14033
Step 3				<i>Inspection - Rim</i>	None	
Step 4				<i>Frame Assembly</i>		
	. 2		94520-01	Hoop - standard	4130 Steel, 1/2" x 0.035 Sqr. Tube	2015-25
	. 1	84262	94520-01	Hoop - with handle provisions	4130 Steel, 1/2" x 0.035 Sqr. Tube	2014-80
	. 1		94521-01	Forward Attachment Hoop		2014-61
	. 1		94522-01	Aft Attachment hoop - with handle provisions		2014-66
	. 2		94620-01	Hoop - short		2015-25 modified.
	. 5		--	1/2" Tube - spine	4130 Steel, 1/2" x 0.035 Sqr. Tube	14083/14099
	. 3		--	1/2" Tube - strut	4130 Steel, 1/2" x 0.035 Sqr. Tube	14099
	. 1		--	1/2" Tube - cross tube bridge	4130 Steel, 1/2" x 0.035 Sqr. Tube	14099
Step 4.g.		70411	70411-01	Option: Front End Cutout		
			70411-03	1/2" Tube	4130 Steel, 1/2" x 0.035 Sqr. Tube	
			70411-04	1/2" Tube	4130 Steel, 1/2" x 0.035 Sqr. Tube	
Step 5				<i>Weld Frame Assembly</i>		
	. A/R		--	Welding Rod	ER70S-2 TIG Rod	14033

Work Order: 2015-33

Material Tracking Sheet

2 of 2

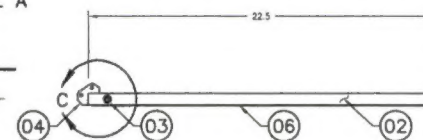
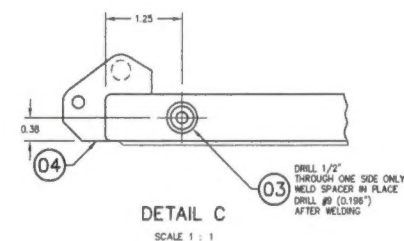
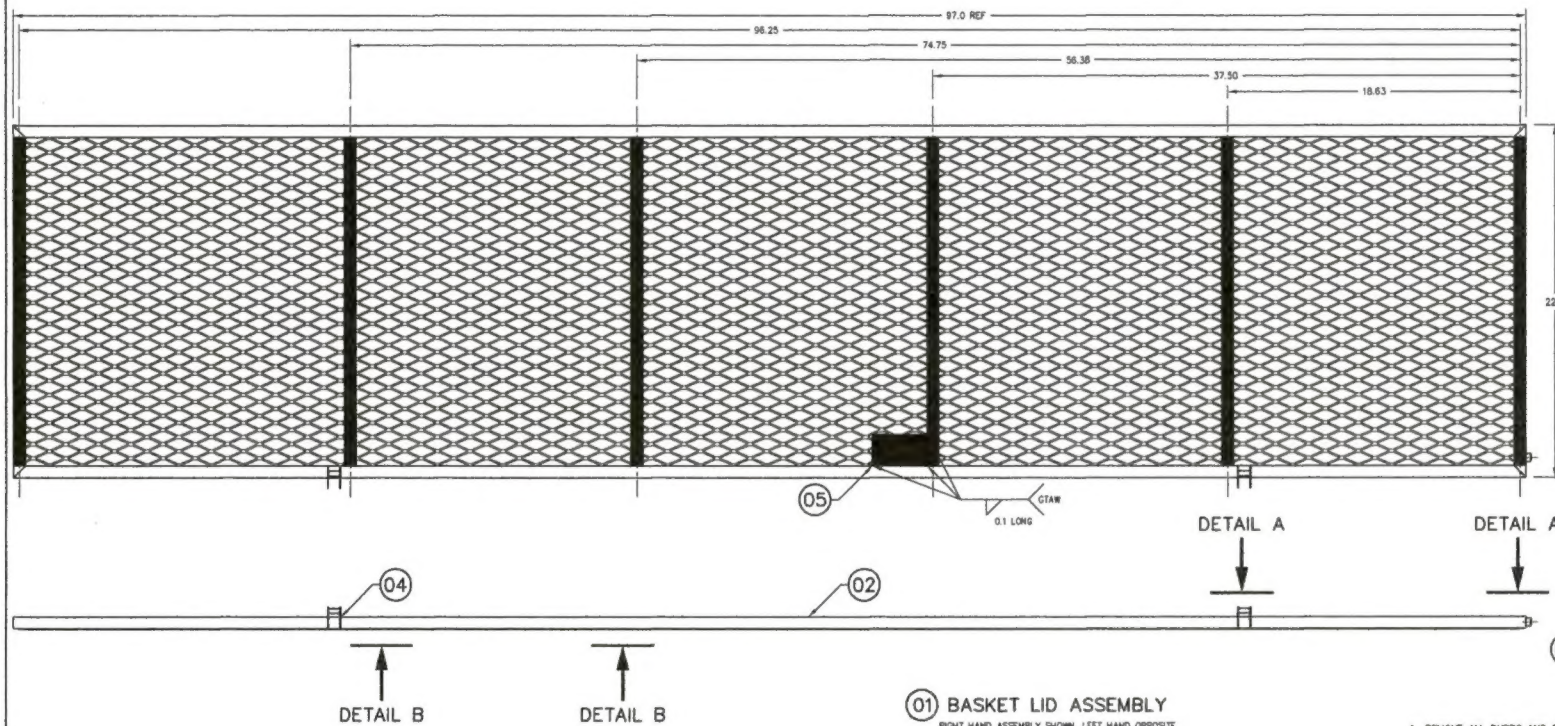
Bell 206L / 407

Date Opened: 06 APR 2015

Extra Wide Ski Basket Body Fabrication

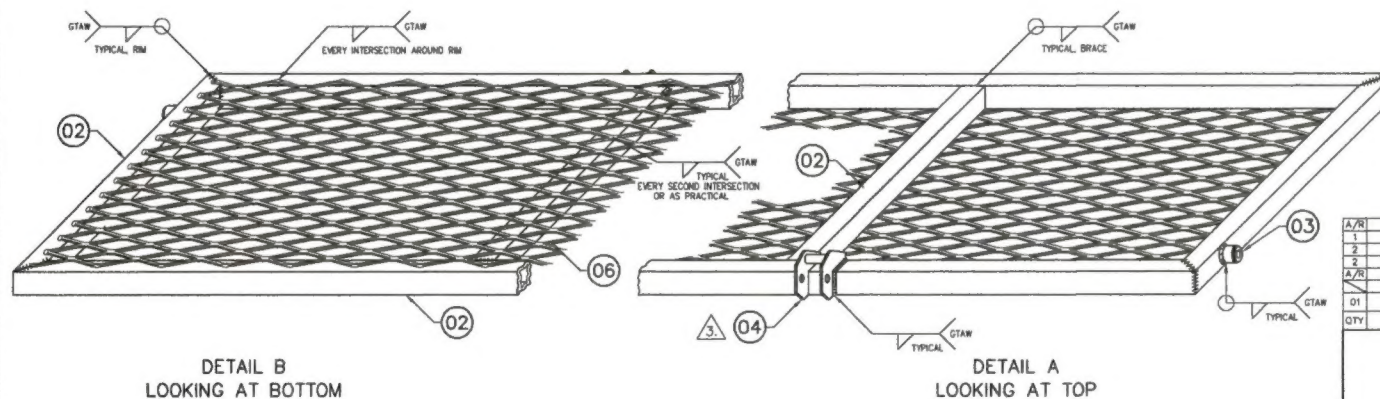
Ass'y Step	Qty	Detail Drawing	Part Number	Description	Material	PO/WO
Step 6				<i>Inspection - Frame Assembly</i>	<i>None</i>	
Step 7				<i>Mesh Assembly</i>		
	. 1		--	Mesh (Body - 56" x 96")	3/4-16F Expanded Mild Steel sheet	14012
	. 4		--	Mesh (End - 24.75" x 16.75")	3/4-16F Expanded Mild Steel sheet	14012
	. 1		--	Mesh (Cutout - 24" x 8")	3/4-16F Expanded Mild Steel sheet	14012
Step 8				<i>Weld Mesh</i>		
	. A/R		--	Welding Rod	ER70S-6 MIG Wire	14033
Step 9				<i>Weld Basket Components</i>		
Step 9.a.	. 1		49215-01	Spacer (Lid prop)	304 Stainless Steel, 1/2" Dia.	2015-07
	. A/R		--	Welding Rod	ER308L TIG Rod	14029
Step 9.c.	. 2		--	Cap	1018 Mild Steel, 0.032" Sheet	9010
	. A/R		--	Welding Rod	ER70S-2	14033
Step 10				<i>Clean Up</i>	<i>None</i>	
Step 11				<i>Inspection - Final Assembly</i>	<i>None</i>	
Step 12				<i>Powder Coating</i>		

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REV	DESCRIPTION OF CHANGE	INITIALS	DATE
0	INITIAL RELEASE		

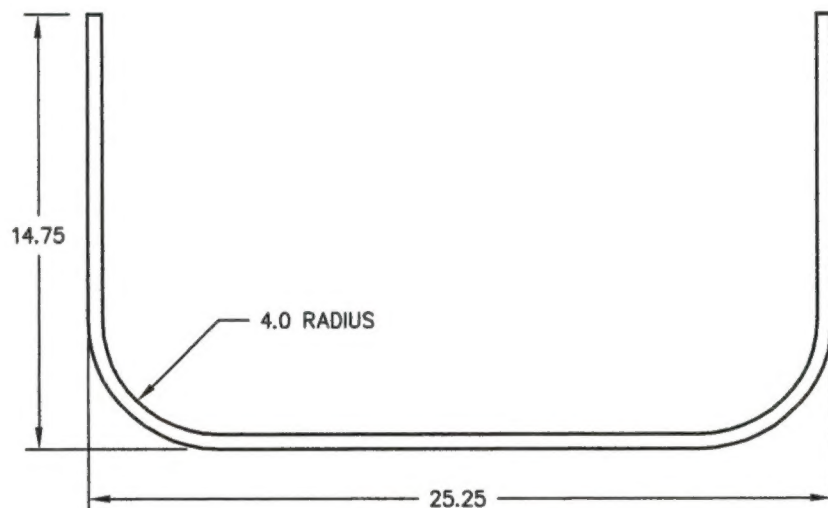


01 BASKET LID ASSEMBLY
RIGHT HAND ASSEMBLY SHOWN, LEFT HAND OPPOSITE

1. REMOVE ALL BURRS AND BREAK SHARP EDGES
2. WELDING OF 4130 STEEL TO BE COMPLETED BY GTAW METHOD TO AMS 2885C.
WELDING ROD SHALL CONFORM TO E70S-2 OR EQUIVALENT.
3. INSTALL ITEM 6 (HANDLE BRACKET ASSEMBLY) IN ACCORDANCE WITH AERO DESIGN LTD. DRAWING 84262
TYP 2 PLACES.
4. WHEN ASSEMBLY IS COMPLETE, FILL ALL VENT HOLES WITH ROSETTE WELD.
5. THOROUGHLY CLEAN AND POWDER COAT BASKET SUB-ASSEMBLIES PRIOR TO ASSEMBLY.



A/R	3/4-10F	06	MESH	MILD STEEL	COMMERCIAL	
1	36204-10	05	PLACARD BRACKET			
2	84262	04	UPPER HANDLE BRACKET ASSY			
2	49216-01	03	SPACER			
A/R		02	TUBE	4130 STEEL, COND. N	MIL-T-8736	0.75 X 0.035 SQ. TUBE
A/R	60812-01	01	BASKET LID ASSEMBLY			
QTY	PART NO.	ITEM	DESCRIPTION	MATERIAL	MATERIAL SPEC	STOCK SIZE
LIST OF MATERIALS						
APPROVALS			DATE			
DRAWN: JEFF CLARKE			29 SEPT 2011			
CHECKED: E. BURCON						
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ON:						
DECIMALS			ANGLES			
X.XXX			±0.010			
X.XX			±0.03			
X.X			±0.1			
			±1/2'			
			SCALE 1 : 4			
			SHEET 1 OF 1		DWG. SIZE	
			A1		DWG. NO.	
			94612		REV.	
			0			



01 HOOP

NOTES:

1. REMOVE ALL BURRS AND SHARP EDGES.
2. DRILL 3/32" VENT HOLE IN BOTTOM OF HOOPS FOR VENTING WELD GASES.

REV.	DESCRIPTION OF CHANGE	INITIALS	DATE
0			

	94620-01	01	END HOOP	4130 STEEL COND. N	MIL-T-6736	1/2 x 0.035 SQR. TUBE
01	PART NO.	ITEM	DESCRIPTION	MATERIAL	MATERIAL SPEC	STOCK SIZE
QTY	LIST OF MATERIALS					
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	DRAWN: JEFF CLARKE		13 SEPT 2011			
	CHECKED: E. BURGAIN					
	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ON: DECIMALS ANGLES X.XXX ±0.010 ±1/2" X.XX ±0.03 X.X ±0.1			BELL 206L SERIES, 407 QUICK RELEASE CARGO BASKET HOOP		
				SCALE 1 : 5	DWG. SIZE	DWG. NO.
SHEET 1 OF 1			LGL	94620	0	